

REMARKS

Claims 1-33 were pending in the Application prior to the outstanding Office Action. Claims 1, 12, 23 and 29 are amended. With this Amendment, claims 1-33 remain in the case.

The Examiner has withdrawn the previous rejections of the claims under 35 U.S.C. §103(a) in light of the prior amendment.

The new grounds of rejection are each respectfully traversed below.

Rejection of Claims 1-33 under 35 U.S.C. §112, first paragraph

The Examiner has rejected claims 1-33 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicant has amended the claims to remove the offending language.

Rejection of Claims 1-33 under 35 U.S.C. §103(a)

The Examiner has rejected claims 1-33 under 35 U.S.C. §103(a) as being unpatentable over Lynch (US Patent No. 5,930,492) in view of Nosenchuck et al. (US Patent No. 4,811,214). Reconsideration is respectfully requested.

First, we focus on claim 1. The Examiner characterizes the “control word/steering word ROM 160” shown in Fig. 13 of Lynch as supplying the “routing control signals in parallel to the plurality of routing units” as stated in the claim. The Examiner takes the position that each pipeline stage “represents a plurality of functional units.” Thus, as applicant understands the Examiner’s position, the output of the “control word/steering word ROM 160” is applied in parallel to each pipeline stage, there being plural functional units within each pipeline stage, and the output of the “control word/steering word ROM 160” is applied to steer data among such units. However, Lynch states that the “steering word specifies the routing of the instruction through the pipeline stages.” Lynch, col. 2, lines 28-29. Also, Lynch states that each pipeline stage produces a control word and steering word for each subsequent stage. Id., col. 3, lines 5-32. This requires that the steering word be carried with the instructions and data, and applied in series to the pipeline stages. Claim 1 in contrast requires routing control signals to be applied in parallel.

The Examiner asserts that there is no mention of a plurality of routing units in Lynch. However, Lynch teaches routing circuitry among the pipeline stages with reference to Figs. 5, 6, 11 and 12 for example. In Lynch, tri-state drivers 126A-126G or multiplexers 128A-128C are used, and controlled by the steering words applied in series through the pipeline.

Notwithstanding the routing architecture of Lynch, the Examiner takes the position that the hyperspace router 80 shown in Fig. 8 of Nosenchuck would be combined with the pipeline of Lynch “in order to implement powerful algorithms directly, as taught by Nosenchuck.” Office Action, page 5.

Applicant submits that the combination does not yield the claimed invention. The steering words of Lynch are applied in series, stage by stage. The hyperspace router of Nosenchuck is used for routing “data words corresponding to the nodal boundaries to bordering nodes 12” (Nosenchuck, col. 8, lines 5-6). In Nosenchuck, it is stated that within the hyperspace router, the “data are self-routing in that the destination address, carried with the data, is used to establish hyperspace router switch states.” Nosenchuck, col. 8, lines 51-53. Therefore, the combination does not address the requirement that the routing control signals of claim 1 be applied in parallel.

Furthermore, the combination is inconsistent with the teaching and purpose of Lynch. In particular, using the hyperspace router of Nosenchuck to route data among the pipeline stages in Lynch would require that Lynch eliminate the function of the “control word/steering word ROM 160” altogether. Since the function of the “control word/steering word ROM 160” is the key idea expressed by Lynch, the combination in effect would eliminate Lynch’s technology altogether.

Claims 2-11 depend from claim 1 and are patentable for the same reasons.

Independent claim 12 distinguishes over the combination for the same reasons as claim 1, and further because of further limitations discussed therein.

Claims 13-22 depend from claim 1 and are patentable for the same reasons.

Independent claim 23 distinguishes over the combination for the same reasons as claim 1, and further because of further limitations discussed therein.

Claims 24-28 depend from claim 23 and are patentable for the same reasons.

Independent claim 29 distinguishes over the combination for the same reasons as claim 1, and further because of further limitations discussed therein.

Claims 30-33 depend from claim 29 and are patentable for the same reasons.

Accordingly, reconsideration of the rejection of claims 1-33 is respectfully requested.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested. If the Examiner believes a telephone conference would aid the prosecution of this case in any way, please call the undersigned at (650) 712-0340.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (UNMI 1000-1).

Respectfully submitted,

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